

SEQUENCE LISTING

IAP20 Rec'd PCT/PTO 15 JUN 2006

<110> President and Fellows of Harvard College , et al.
 <120> MODULATION OF IMMUNE SYSTEM FUNCTION BY
 MODULATION OF POLYPEPTIDE ARGININE METHYLTRANSFERASES

<130> HUI-054PC

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<141> 2003-12-18

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<170> FastSEQ for Windows Version 4.0

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BEST AVAILABLE COPY

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 Pro Arg Pro Ala Ser Arg Ser Ser Pro Gly Ala Lys Arg Arg His
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 Pro Met Pro Ser Asp Glu Gly Arg Gly Pro Gly Ala Asp Gln Gln His
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 Arg Phe Phe Tyr Pro Glu Pro Gly Ala Gln Asp Pro Thr Asp Arg Arg
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ggt gcg gag ggc tac ccg ccc gtg gat ggc tac cct gcc cct gac ccg 336
 Gly Ala Glu Gly Tyr Pro Pro Val Asp Gly Tyr Pro Ala Pro Asp Pro
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cgc gcg ggg ctc tac cca ggg ccg cgc gag gac tac gca ttg ccc gcg 384
 Arg Ala Gly Leu Tyr Pro Gly Pro Arg Glu Asp Tyr Ala Leu Pro Ala
 115 120 125

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 Gly Leu Glu Val Ser Gly Lys Leu Arg Val Ala Leu Ser Asn His Leu
 130 135 140

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 145 150 155 160

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 165 170 175

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Gln	His	His	Trp	Arg	Tyr	Gln	Ser	Gly	Lys	Trp	Val	Gln	Cys	Gly	Lys	
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Ala	Glu	Gly	Ser	Met	Pro	Gly	Asn	Arg	Leu	Tyr	Val	His	Pro	Asp	Ser	
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Pro	Asn	Thr	Gly	Ala	His	Trp	Met	Arg	Gln	Glu	Val	Ser	Phe	Gly	Lys	
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Ile	Val	Leu	Gln	Ser	Leu	His	Lys	Tyr	Gln	Pro	Arg	Leu	His	Ile	Val	
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Glu	Val	Asn	Asp	Gly	Glu	Pro	Glu	Ala	Ala	Cys	Ser	Ala	Ser	Asn	Thr	
						275			280			285				
cac	gtc	ttt	act	ttc	caa	gag	acc	cag	ttc	att	gca	gtg	act	gcc	tac	912
His	Val	Phe	Thr	Phe	Gln	Glu	Thr	Gln	Phe	Ile	Ala	Val	Thr	Ala	Tyr	
						290			295			300				
cag	aac	gca	gag	atc	act	cag	ctg	aaa	atc	gac	aac	ccc	ttt	gcc	960	
Gln	Asn	Ala	Glu	Ile	Thr	Gln	Leu	Lys	Ile	Asp	Asn	Asn	Pro	Phe	Ala	
						305			310			315			320	
aaa	gga	ttc	cgg	gag	aac	ttt	gag	tcc	atg	tac	gca	tct	gtt	gat	acg	1008
Lys	Gly	Phe	Arg	Glu	Asn	Phe	Glu	Ser	Met	Tyr	Ala	Ser	Val	Asp	Thr	
						325				330			335			
agt	gtc	ccc	tcg	cca	cct	gga	ccc	aac	tgt	caa	ctg	ctt	ggg	gga	gac	1056
Ser	Val	Pro	Ser	Pro	Pro	Gly	Pro	Asn	Cys	Gln	Leu	Leu	Gly	Gly	Asp	
						340				345			350			
ccc	ttc	tca	cct	ctt	cta	tcc	aac	cag	tat	cct	gtt	ccc	agc	cgt	ttc	1104
Pro	Phe	Ser	Pro	Leu	Leu	Ser	Asn	Gln	Tyr	Pro	Val	Pro	Ser	Arg	Phe	
						355			360			365				
tac	ccc	gac	ttt	cca	ggc	cag	ccc	aag	gat	atg	atc	tca	cag	cct	tac	1152
Tyr	Pro	Asp	Leu	Pro	Gly	Gln	Pro	Lys	Asp	Met	Ile	Ser	Gln	Pro	Tyr	
						370			375			380				
tgg	ctg	ggg	aca	cct	cgg	gaa	cac	agt	tat	gaa	gcg	gag	ttc	cga	gct	1200
Trp	Leu	Gly	Thr	Pro	Arg	Glu	His	Ser	Tyr	Glu	Ala	Glu	Phe	Arg	Ala	
						385			390			395			400	
gtg	agc	atg	aag	ccc	aca	ctc	cta	ccc	tct	gcc	ccg	ggg	ccc	act	gtg	1248
Val	Ser	Met	Lys	Pro	Thr	Leu	Leu	Pro	Ser	Ala	Pro	Gly	Pro	Thr	Val	
						405				410			415			

ccc tac tac cgg ggc caa gac gtc ctg gcg cct gga gct ggt tgg ccc	1296
Pro Tyr Tyr Arg Gly Gln Asp Val Leu Ala Pro Gly Ala Gly Trp Pro	
420 425 430	
gtg gcc cct caa tac ccc aag atg agc cca gct ggc tgg ttc cg	1344
Val Ala Pro Gln Tyr Pro Pro Lys Met Ser Pro Ala Gly Trp Phe Arg	
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ccc atg cga act ctg ccc atg gac ccg ggc ctg gga tcc tca gag gaa	1392
Pro Met Arg Thr Leu Pro Met Asp Pro Gly Leu Gly Ser Ser Glu Glu	
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Gln Gly Ser Ser Pro Ser Leu Trp Pro Glu Val Thr Ser Leu Gln Pro	
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Glu Pro Ser Asp Ser Gly Leu Gly Glu Gly Asp Thr Lys Arg Arg Arg	
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Ile Ser Pro Tyr Pro Ser Ser Gly Asp Ser Ser Ser Pro Ala Gly Ala	
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Pro Asn	
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35 40 45	
Ala Gly Ser Ser Leu Gly Thr Pro Tyr Ser Gly Gly Ala Leu Val Pro	
50 55 60	
Ala Ala Pro Gly Arg Phe Leu Gly Ser Phe Ala Tyr Pro Pro Arg Ala	
65 70 75 80	
Gln Val Ala Gly Phe Pro Gly Pro Gly Glu Phe Phe Pro Pro Pro Ala	
85 90 95	
Gly Ala Glu Gly Tyr Pro Pro Val Asp Gly Tyr Pro Ala Pro Asp Pro	
100 105 110	

Arg Ala Gly Leu Tyr Pro Gly Pro Arg Glu Asp Tyr Ala Leu Pro Ala
 115 120 125
 Gly Leu Glu Val Ser Gly Lys Leu Arg Val Ala Leu Ser Asn His Leu
 130 135 140
 Leu Trp Ser Lys Phe Asn Gln His Gln Thr Glu Met Ile Ile Thr Lys
 145 150 155 160
 Gln Gly Arg Arg Met Phe Pro Phe Leu Ser Phe Thr Val Ala Gly Leu
 165 170 175
 Glu Pro Thr Ser His Tyr Arg Met Phe Val Asp Val Val Leu Val Asp
 180 185 190
 Gln His His Trp Arg Tyr Gln Ser Gly Lys Trp Val Gln Cys Gly Lys
 195 200 205
 Ala Glu Gly Ser Met Pro Gly Asn Arg Leu Tyr Val His Pro Asp Ser
 210 215 220
 Pro Asn Thr Gly Ala His Trp Met Arg Gln Glu Val Ser Phe Gly Lys
 225 230 235 240
 Leu Lys Leu Thr Asn Asn Lys Gly Ala Ser Asn Asn Val Thr Gln Met
 245 250 255
 Ile Val Leu Gln Ser Leu His Lys Tyr Gln Pro Arg Leu His Ile Val
 260 265 270
 Glu Val Asn Asp Gly Glu Pro Glu Ala Ala Cys Ser Ala Ser Asn Thr
 275 280 285
 His Val Phe Thr Phe Gln Glu Thr Gln Phe Ile Ala Val Thr Ala Tyr
 290 295 300
 Gln Asn Ala Glu Ile Thr Gln Leu Lys Ile Asp Asn Asn Pro Phe Ala
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 Lys Gly Phe Arg Glu Asn Phe Glu Ser Met Tyr Ala Ser Val Asp Thr
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 Ser Val Pro Ser Pro Pro Gly Pro Asn Cys Gln Leu Leu Gly Gly Asp
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 Pro Phe Ser Pro Leu Leu Ser Asn Gln Tyr Pro Val Pro Ser Arg Phe
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 Tyr Pro Asp Leu Pro Gly Gln Pro Lys Asp Met Ile Ser Gln Pro Tyr
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 Trp Leu Gly Thr Pro Arg Glu His Ser Tyr Glu Ala Glu Phe Arg Ala
 385 390 395 400
 Val Ser Met Lys Pro Thr Leu Leu Pro Ser Ala Pro Gly Pro Thr Val
 405 410 415
 Pro Tyr Tyr Arg Gly Gln Asp Val Leu Ala Pro Gly Ala Gly Trp Pro
 420 425 430

Val Ala Pro Gln Tyr Pro Pro Lys Met Ser Pro Ala Gly Trp Phe Arg
435 440 445

Pro Met Arg Thr Leu Pro Met Asp Pro Gly Leu Gly Ser Ser Glu Glu
450 455 460

Gln Gly Ser Ser Pro Ser Leu Trp Pro Glu Val Thr Ser Leu Gln Pro
465 470 475 480

Glu Pro Ser Asp Ser Gly Leu Gly Glu Gly Asp Thr Lys Arg Arg Arg
485 490 495

Ile Ser Pro Tyr Pro Ser Ser Gly Asp Ser Ser Ser Pro Ala Gly Ala
500 505 510

Pro Ser Pro Phe Asp Lys Glu Thr Glu Gly Gln Phe Tyr Asn Tyr Phe
515 520 525

Pro Asn
530

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